



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,017	11/03/2003	Siddhartha Nag	59033-297872	5830
25764	7590	08/24/2005	EXAMINER	
FAEGRE & BENSON LLP PATENT DOCKETING 2200 WELLS FARGO CENTER MINNEAPOLIS, MN 55402			NGUYEN, THANH T	
			ART UNIT	PAPER NUMBER
			2144	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/701,017

Applicant(s)

NAG, SIDDHARTHA

Examiner

Tammy T. Nguyen

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/2/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

PD



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

Detailed Office Action

1. This action is in response to the application 10/701017 filed on November 3, 2003.
2. Claims 1-18 have been examined.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo et al.,
(hereinafter Lo) U.S. Patent No. 6,798,786 in view of Krishnaswamy et al.,
(hereinafter Krishnaswamy) U.S. Patent No. 6,909,708.

1. As to claim 1, Lo teaches the invention as claimed, including a method comprising:
reserving a Quality of Service (QoS) resource pool a predetermined portion of

available bandwidth (see col.7, lines 37-52, col.14, lines 16-27, col.16, lines 20-26) between a first network device coupled in communication with a packet network and associated with a first user community and a second network device coupled in communication with the packet network and associated with a second user community (fig.1B, terminal 14...19, and 34) for real-time communication sessions among users of the first user community and the second user community (see col.9, lines 50-67); and providing end-to-end application QoS between the first user community and the second user community by selectively admitting a plurality of real-time communication sessions between the first user community and the second user community based upon currently available resources associated with the QoS resource pool (see col.7, lines 37-52, col.14, lines 16-27, col.16, lines 20-26) and the plurality of real-time communication between the first network device and the second network device (see col.9, lines 50-67). But Lo does not explicitly teach multiplexing and reservation protocol session. However, Krishnaswamy teaches multiplexing (see col.12, lines 20-25, col.14, lines 62-67, col.24, lines 15-25, and col.190, lines 15-20) and reservation protocol session (see col. 87, lines 9-15, col.127, lines 1-17, RSVP). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Krishnaswamy into the computer system of Lo to have multiplexing and reservation protocol session because it would have provided specific functions that can combine multiple signals (analog or digital) for transmission over a single line or media over new Internet protocol being developed to enable the Internet to support specified Qualities of service.

4. As to claim 2, Lo teaches the invention as claimed, wherein said reserving a predetermined portion of available bandwidth between a first network device associated with a first user community and a second network device associated with a second user community includes pre-allocating the reservation protocol session over a path through the packet network between the first network device and the second network device (see col.4, lines 44-53, and col.7, lines 38-52).
2. As to claim 3, Lo does not explicitly teach a Resource Reservation Protocol (RSVP) session. However, Krishnaswamy teaches a Resource Reservation Protocol (RSVP) session (see col. 87, lines 9-15, col.127, lines 1-17, RSVP). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Krishnaswamy into the computer system of Lo to have a Resource Reservation Protocol (RSVP) session because it would have provided a new Internet protocol being developed to enable the Internet to support specified Qualities- of service.
5. As to claim 4, Lo teaches the invention as claimed, wherein at least one of the plurality of real-time communication sessions includes a H.323 session and a Real-time Transport Protocol (RTP) session (see col.5, lines 34-41)
6. As to claim 5, Lo teaches the invention as claimed, wherein the first user community and the second user community comprises subscribers to a long distance carrier (fig.1B).
7. As to claim 6, Lo teaches the invention as claimed, wherein the first user community and the second user community comprise employees of an enterprise at a first

- geographic location and a second geographic location, respectively (Fig. 1B) (see col.14, lines 11-15).
8. As to claim 7, Lo teaches the invention as claimed, wherein the packet network comprises the Internet (Fig. 1B).
 9. As to claim 8, Lo teaches the invention as claimed, wherein: a first local network supporting the first user community comprises Internet Protocol (IP) telephony products of a first vendor which are in communication with a first IP private branch exchange (PBX) call management agent, and a second local network supporting the second user community comprises IP telephony products of a second vendor which are in communication with a second IP PBX call management agent (see col.10, lines 24-40).
 10. As to claim 9, Lo teaches the invention as claimed, wherein the plurality of real-time communication sessions comprise voice over IP (VoIP) calls carrying voice or voice-band data (see col.10, lines 13-23).
 11. As to claim 10, Lo teaches the invention as claimed, including a method comprising: establishing an aggregated reservation protocol session over a path between a first device coupled to a public Internet Protocol (IP) network and a second device coupled to the public IP network (fig. 1B) (see col.7, lines 37-52, col.14, lines 16-27, col.16, lines 20-26); and providing end-to-end Quality of Service (QoS) on behalf of users of a distributed voice over IP environment by (i) selectively admitting a plurality of VoIP calls between those of the users associated with a first user community that access the public IP network via the first device and those of the

users associated with a second user community that access the public IP network via the second device based on resources and a desired level of service (see col.7, lines 37-52, col.14, lines 16-27, col.16, lines 20-26). But Lo does not explicitly teach multiplexing and reservation protocol session. However, Krishnaswamy teaches multiplexing (see col.12, lines 20-25, col.14, lines 62-67, col.24, lines 15-25, and col.190, lines 15-20) and reservation protocol session (see col. 87, lines 9-15, col.127, lines 1-17, RSVP). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Krishnaswamy into the computer system of Lo to have multiplexing and reservation protocol session because it would have provided specific functions that can combine multiple signals (analog or digital) for transmission over a single line or media over new Internet protocol being developed to enable the Internet to support specified Qualities of service.

3. As to claim 11, Lo teaches the invention as claimed, including a method comprising:
 - establishing a first network device and a second network device that are part of a geographically distributed enterprise voice over Internet Protocol (VoIP) network (see col.10, lines 5-40); receiving, at the first network device from a first local terminal, a request to initiate a first VoIP call with a first remote terminal associated with the second network device (abstract); allocating a portion of pre-allocated resources associated to the first VoIP call between the first local terminal and the first remote terminal (see col.10, lines 5-40); receiving, at the first network device from a second local terminal, a request to initiate a second VoIP call with a second remote

terminal associated with the second network device (fig. 1B); allocating a portion of the pre-allocated resources associated the second VoIP call between the second local terminal and the second remote terminal (see col.9, line 54 to col. 10, line 5, and col.10, lines 5-40); and providing a desired level of Quality of Service (QoS) to both the first VoIP call and the second VoIP call between the first VoIP call and the second VoIP call voice or voice-band data associated with the first and second VoIP calls (see col.4, lines 44-53, col.14-24, col.6, lines 10-17, and col.10, lines 33-43, col.12, lines 19-54, and col.13, line 65 to col.14, line 53). But Lo does not explicitly teach multiplexing and reservation protocol session. However, Krishnaswamy teaches multiplexing (see col.12, lines 20-25, col.14, lines 62-67, col.24, lines 15-25, and col.190, lines 15-20) and Resource Reservation Protocol (RSVP) session (see col. 87, lines 9-15, col.127, lines 1-17, RSVP). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Krishnaswamy into the computer system of Lo to have multiplexing and Resource Reservation Protocol (RSVP) session because it would have provided specific functions that can combine multiple signals (analog or digital) for transmission over a single line or media over new Internet protocol being developed to enable the Internet to support specified Qualities of service.

12. As to claim 12, Lo teaches the invention as claimed, further comprising: transmitting packets from the first local terminal and first remote terminal by forming an encapsulated packet at the first network device that includes tag information to allow the second network device to determine the packets are intended for the first remote

- terminal, and removing the tag information at the second network device prior to forwarding the packets to the first remote terminal (fig. 1B).
13. As to claim 13, Lo teaches the invention as claimed, wherein the tag information includes the IP address of the first local terminal (see col.3, lines 26-53).
14. As to claim 14, Lo teaches the invention as claimed, wherein the tag information includes the IP address of the first remote terminal (see col.3, lines 26-53).
15. As to claim 15, Lo teaches the invention as claimed, wherein the tag information includes a packet type indicator that specifies how to further identify a subprocess within the first remote terminal (fig. 1B).
16. As to claim 16, Lo teaches the invention as claimed, wherein the first local terminal and the first remote terminal comprise IP phones (see col.8, lines 19-32).
17. As to claim 17, Lo teaches the invention as claimed, wherein the first local terminal and the first remote terminal comprise computer systems running an Internet telephony application (fig. 1B).
4. As to claim 18, Lo teaches the invention as claimed, including a media aggregation manager comprising: a resource manager to establish a reservation protocol session with one or more other media aggregation managers prior to establishment of any application sessions that share resources associated with the reservation protocol and to subsequently allocate and deallocate the resources in response to application session establishment requests and application session termination requests, respectively (see col.13, line 44 to col.14, line 28); an admission control manager coupled to the resource manager, the admission control manager to provide admission

control for application flows based upon availability of the resources as indicated by the resource manager, a media coupled to the admission control manager, the media tag media packets received from local application/endpoints that are associated with admitted application flows and to transmit the tagged media packets over the reservation protocol session (see col.6, lines 10-17, col.8, lines 33-43, and col.9, line 50 to col.10, line40); a media to forward media packets received from remote application/endpoints to the local application/endpoints based upon tags appended by a media of the one or more other media aggregation managers (see col.3, lines 39-53, col.4, lines 28-40, and col.8, lines 32-43); and a signaling gateway to perform signaling/media translation, if necessary, among a first signaling protocol employed by a first Voice over Internet Protocol (VoIP) environment in which the media aggregation manager is to operate and one or more signaling protocols employed by VoIP environments in which the one or more other media aggregation managers operate (see col.9, line 50 to col.10, line 23). But Lo does not explicitly teach multiplexor, demultiplexor and reservation protocol session. However, Krishnaswamy teaches multiplexor, demultiplexor (see col.12, lines 20-25, col.14, lines 62-67, col.24, lines 15-25, and col.190, lines 15-20) and reservation protocol session (see col. 87, lines 9-15, col.127, lines 1-17, RSVP). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Krishnaswamy into the computer system of Lo to have multiplexing and reservation protocol session because it would have provided specific functions that can combine multiple signals (analog or digital) for transmission over a

Art Unit: 2144


single line or media over new Internet protocol being developed to enable the Internet to support specified Qualities of service.

Conclusion

18. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(571) 272-3929**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, David Wiley, may be reached at **(571) 272-3923**.

TTN
August 10, 2005


DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100